
New Combinations in *Erica* (Ericaceae: Ericoideae) from the High Mountains of East Africa

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ABSTRACT. Three taxa found in the high mountains of East Africa are transferred from *Philippia* Klotzsch to *Erica* L., resulting in the following new combinations: *Erica johnstonii* (Schweinfurth ex Engler) Dorr, *E. trimera* subsp. *abyssinica* (Pichi-Sermolli & Heiniger) Dorr, and *E. trimera* subsp. *meruensis* (R. Ross) Dorr. A neotype is selected for *Philippia johnstonii* Schweinfurth ex Engler, which is the basionym of *E. johnstonii*. A key to the five subspecies of *E. trimera* (Engler) Beentje also is provided.

Key words: East Africa, *Erica*, Ericaceae, *Philippia*.

The rationale for submerging the genus *Philippia* Klotzsch in *Erica* L. has been amply documented by Oliver (1987, 1988, 2000), who recognized that the character used to distinguish the two genera, the degree of recaulescence of the bract, is unreliable and breaks down especially in species referred to *Philippia*. Accordingly, nomenclatural changes have been proposed for the species of *Philippia* found in southern Africa (Oliver, 1987), East Africa (Beentje, 1990; Dorr, 1994), the Flora Zambesiaca region (Oliver, 1992), the Mascarene Islands (Oliver, 1993), Madagascar and the Comoro Islands (Dorr & Oliver, 1999a), and São Tomé (Dorr & Oliver, 1999b). These papers disposed of most, but not all, of the names in that genus.

While curating material in the U.S. National Herbarium, it was discovered that three taxa of *Philippia* occurring in the high mountains of East Africa continue to lack names in the genus *Erica*. Lebrun and Stork (1997: 18) earlier had mentioned part of this lingering problem when they listed four names in tropical African *Philippia* that would eventually have to be reclassified as *Erica*. Two of the names they listed, *P. abyssinica* Pichi-Sermolli & Heiniger and *P. johnstonii* Schweinfurth ex Engler, are transferred here; one name, *P. kemensis* [sic] S. Moore, clearly an orthographic corruption of *P. keniensis* introduced by the scanning process used to create the electronic version of *Index Kewensis* (Anonymous, 1993), is now *E. trimera* subsp. *keniensis* (S. Moore) Beentje; and the fourth name, *P. multi-*

glandulosa (Klotzsch) Alm & T. C. E. Fries, is considered to be a synonym of *E. galioides* Lamarck (Oliver, 1993: 768). Lebrun and Stork (1997) overlooked *P. keniensis* subsp. *meruensis* R. Ross, which also is transferred to *Erica* here.

Erica johnstonii (Schweinfurth ex Engler) Dorr, comb. nov. Basionym: *Philippia johnstonii* Schweinfurth ex Engler, Pflanzenw. Ost-Afrikas C: 302, tab. 33, fig. J-T, 1895 [as "*Johnstonii*"]. TYPE: Democratic Republic of the Congo. Nord-Kivu: Ruwenzori, vallée de la Lanuri [= Ruanoli, 00°36'N, 29°52'E, fide Bamps, 1982], ca. 4000 m, 29 May 1914, J. Bequaert 4527 (neotype, designated here, BR; isotype, US).

In the protologue of *Philippia johnstonii*, Engler (1895) only cited two collections (*F. L. Stuhlmann* 2374, 2458), which subsequently were destroyed at Berlin. Because no duplicate has been found of either syntype, a collection from the type locality (i.e., Ruwenzori) is chosen as neotype.

Erica johnstonii can only be confused with *E. rossii* Dorr, which also has 3-merous flowers. Alm and Fries (1927a) placed *E. johnstonii* and *E. rossii* (treated as *Philippia johnstonii* and *P. excelsa* Alm & T. C. E. Fries, respectively) together in *Philippia* subgen. *Afrophilippia* Alm & T. C. E. Fries, which they circumscribed as having a 3-merous calyx and corolla, 6 free stamens, and 3-locular ovary. They and subsequent authors (e.g., Hedberg, 1957: 142), while acknowledging that the two species are closely related, have distinguished them by the degree to which the calyx is connate. In *E. johnstonii*, the calyx is connate only for the lower 1/4 or less of its length, while in *E. rossii* it is connate for the lower 1/3 or 1/2 of its length. Additionally, Hedberg (1957: 301) noted that the two smaller sepals of *E. johnstonii* are more or less lanceolate and 1.5 to 2 times longer than wide, while those of *E. rossii* are broadly triangular and about as long as wide.

Erica johnstonii and *E. rossii* are geographically distinct. The former species is known from the

Virunga Mts. (Democratic Republic of the Congo), Ruwenzori (Democratic Republic of the Congo and Uganda), and Rwanda. The latter one is found on Mt. Elgon (Kenya and Uganda), the Aberdare Mts. (Kenya), Mt. Kilimanjaro (Tanzania), and Mt. Meru (Tanzania).

Although the specific epithet of *Erica johnstonii* is superficially similar to that of *E. johnstoniana* Britten, which occurs in Malawi, Mozambique, Zimbabwe, and possibly Tanzania (Ross, 1983), the *International Code of Botanical Nomenclature* (Greuter et al., 2000) does not consider these endings to be incompatible (see Art. 53, Ex. 10, where *Lysimachia hemsleyana* D. Oliver and *L. hemsleyi* Franchet are cited as examples of “names not likely to be confused”).

Erica trimera* (Engler) Beentje subsp. *abyssinica (Pichi-Sermolli & Heiniger) Dorr, comb. nov. Basionym: *Philippia abyssinica* Pichi-Sermolli & Heiniger, *Webbia* 9: 29, tab. 5, 6. 1953. *Philippia keniensis* S. Moore subsp. *abyssinica* (Pichi-Sermolli & Heiniger) R. Ross, *Bull. Jard. Bot. État* 27: 748. 1957. *Philippia trimera* Engler subsp. *abyssinica* (Pichi-Sermolli & Heiniger) Hedberg, *Symb. Bot. Upsal.* 15(1): 301 [validating reference to basionym on p. 298]. 1957. TYPE: Ethiopia. Arussi Prov.: Scirè [= Sirè, E of Lake Auasa], 2800 m, 1 Feb. 1938, R. Milchersich 44 (holotype, FT not seen).

This subspecies is endemic to the highlands of Ethiopia.

Erica trimera* (Engler) Beentje subsp. *meruensis (R. Ross) Dorr, comb. nov. Basionym: *Philippia keniensis* S. Moore subsp. *meruensis* R. Ross, *Bull. Jard. Bot. État* 27: 747. 1957. TYPE: Tanzania. Mt. Meru, 11,000–12,000 ft., 29 Sep. 1932, B. D. Burt 4063 (holotype, K not seen; isotypes, BR, EA).

This subspecies is endemic to Mt. Meru, Tanzania. *Erica trimera* (Engler) Beentje is here considered to consist of geographically isolated but related populations in the high mountains of East Africa, all of which share a 4-merous flower, 8 anthers connate until anthesis, then becoming free, leaves in whorls of 3, and an absence of barbellate, or plumose, hairs. Various taxonomic interpretations of these populations have been proposed. They have been treated as three species of *Philippia* and one of *Erica* by Alm and Fries (1927a, 1927b); six different subspecies of *P. trimera* Engler by Hedberg (1957); and *P. trimera* and four subspecies of *P. keniensis* by Ross (1957). The present circumscription of *E. trimera* recognizes

the five taxa recognized by Ross (1957), albeit with the current nomenclatural innovation.

KEY TO THE SUBSPECIES OF *ERICA TRIMERA*

- 1a. Young stems with long glandular hairs (sometimes sparsely glandular pubescent or even glabrous).
 - 2a. Margin of all calyx segments glandular; margin of leaf blades ciliate and minutely glandular when young; Ethiopia subsp. *abyssinica*
 - 2b. Margin of calyx segments eglandular (sometimes a few glands on the largest, fused sepal); margin of leaf blades glandular-dentate; Democratic Republic of the Congo and Uganda (Ruwenzori Mts.) subsp. *trimera*
- 1b. Young stems without glandular hairs (always pubescent).
 - 3a. Margin of leaf blades glandular; Kenya and Uganda (Mt. Elgon) subsp. *elgonensis*
 - 3b. Margin of leaf blades eglandular.
 - 4a. Leaf blades pubescent above and near the margin below; margin of leaf blades ciliate, eglandular; pedicels sparsely pubescent throughout; Tanzania (Mt. Meru) subsp. *meruensis*
 - 4b. Leaf blades glabrous above (or with a few scattered hairs on the proximal part of the upper surface); margin of leaf blades ciliate, glandular; pedicels glabrous, except sometimes at the base; Kenya (Mt. Kenya) and Tanzania (Mt. Kilimanjaro and Mt. Loolmalassin) subsp. *keniensis*

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